

#### D. Remarks

The claims are 48-88, with claims 48 and 57 being independent. Claims 49, 54, 81 and 86 have been amended to address section 112, second paragraph, issues. The specification has been amended for clarification. No new matter has been added.

Reconsideration of the present claims is respectfully requested.

The Examiner objected to Applicants' July 30, 2004 Amendment under 35 U.S.C. § 132 for allegedly introducing new matter into the specification. In particular, the Examiner focused on the "3,4,5,6,7,8-hexafluoroisoquinoline group," which is recited in the paragraph bridging pages 16 and 17.

In response, Applicants have now amended the specification to clarify that R' and q may be such that IsoQ-R'q is a 3,4,5,6,7,8-hexafluoroisoquinoline group substituted at a 4- or 5- position. Accordingly, this objection should be withdrawn.

Claims 49-56 and 81-88 stand rejected under 35 U.S.C. § 112, second paragraph, as being allegedly indefinite.

Applicants submit that in view of the above amendments to claims 49, 54, 81 and 86, this rejection should be withdrawn.

Claims 48-88 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent Application Publication No. 2001/0019782 A1 (Igarashi).

Claims 48-88 stand under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent Application Publication No. 2003/0072964 A1 (Kwong). The grounds of rejection are respectfully traversed.

Initially, Applicants would like to address the issues with respect to claims 48-56. These claims are directed to a metal coordination compound having a combination

of specific, different (bidentate) ligands, including a phenylisoquinoline ligand (vertical piq ligand).

Both Igarashi and Kwong disclose a number of metal coordination compounds with different ligands. However, these documents fail to teach the specific ligands, including vertical piq ligands as presently claimed.

The Examiner pointed to several paragraph in Igarashi and Kwong that generally address coordination compounds that can possibly include the presently claimed groups, alleging that it would have been obvious to select them. Applicants respectfully disagree.

In particular, Igarashi discloses general formula (23), which is somewhat similar to the first two structures in present claim 48. However, upon further scrutiny, the differences between the two structures are substantial and cannot be deemed to be a matter of an obvious choice. First, the isoquinoline group in formula (23) is different from the isoquinoline in claim 48. Thus, in order to arrive at the presently claimed invention, a skilled artisan would have to choose to rearrange the fused rings. Second, the substituents on the isoquinoline ring would have to be chosen from thousands of possibilities, the listing of which spans almost two columns in Igarashi. Even if the list is narrowed down to preferred groups, these groups still present hundreds, if not thousands, of choices. The same can be said of the substituents R<sup>13</sup>-R<sup>15</sup>.

Also, in connection with the remaining structures recited in claim 48, one would have to choose a specific bidentate ligand based on the disclosure of thousands of possibilities and then perform yet another selection of the substituents from a batch of choices numbering in thousands. It is clear that the sheer number of selections and

alteration needed to be made to the compounds disclosed in Igarashi is great. It is akin to putting together a jigsaw puzzle from thousands of pieces without knowing what the final picture looks like or even how many pieces it should have. Applicants remind the Examiner that all selections and alterations must be considered together.

The same analysis is applicable to the generic disclosure provided in Kwong. There are thousands, if not hundreds of thousands, of possible structures, which can be drawn based on what is disclosed. Simply put, there is not enough disclosure to direct a skilled artisan to arrive at the presently claimed invention.

Applicants understand that looking at the structures presently claimed it may be considerably easier to make the appropriate selections in both Igarashi and Kwong. However, such a course of action is not permitted in an obviousness analysis, because it is premised on hindsight. There is no disclosure or suggestion in the cited art to make the selections Applicants have made from thousands of possibilities set forth in the generic structures in Igarashi and Kwong. The expectation of success is a separate requirement from motivation or suggestion, which, by itself, is insufficient to show obviousness. Accordingly, neither Igarashi nor Kwong can affect the patentability of the present claims.

Claims 57-87 are directed to metal coordination compounds with three identical vertical piq ligand, which are connected to iridium. Again, both Igarashi and Kwong fail to disclose or suggest such structures. These documents, at most, disclose two vertical piq ligands.

In addition to the arguments present above with respect to vast generic disclosure without the necessary specifics to make the required selection, Applicants submit that having one or two vertical piq ligands is substantially different from having

three such ligands. Applicants submit that, conventionally, it has not been possible to synthesize metal coordination compounds having three identical piq ligands as presently claimed, which is why neither Igarashi nor Kwong discloses them. However, as is clearly shown in Example 7, a compound of claim 58 was synthesized by Applicants.

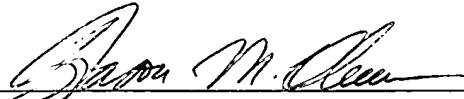
Furthermore, as described in the specification at pages 77-80, unexpected results in the form of excellent thermal stability of the metal coordination compounds were found. The other compounds recited in claims 57-87 have similar, identical vertical piq ligands (with substituents), which are similarly synthesized and provide similar effects. Among these compounds, the compound of claim 58 is particularly excellent in terms of luminescence with high color purity and external quantum efficiency compared with conventional organic luminescence devices.

Thus, it is clear that neither Igarashi nor Kwong can affect the patentability of the presently claimed invention.

Wherefore, Applicants respectfully request that the outstanding rejections be withdrawn and that the present case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Jason M. Okun", written over a horizontal line.

Jason M. Okun  
Attorney for Applicants  
Registration No. 48,512

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

NY\_MAIN 483103v1